7. Optical interference coating comprising interleaved thin-film stacks

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EXEMPLARY CLAIMS- An optical interference coating for reflecting infrared radiation and transmitting visible light comprising:
one or more interleaved stacks said interleaved stacks comprising a first stack containing three alternating layers of high and low refractive index materials of form (L/a bH L/a), and a second stack containing three alternating layers of high and low refractive index materials of the form (H/a bL H/a);
wherein L and H are a low and a high index of refraction material respectively, L and H each being defined as having an optical thickness of a multiple of a quarter-wave of the stack wavelength; and
wherein a and b are predetermined values in the ranges of:
1.75 (less than) a (less than) 2.5 and 2.75 (less than) b (less than) 3.25.
A coating as claimed in claim 1, further comprising a stack of the form (L/a bH L/a) added to one side of the one or more interleaved stacks to achieve symmetry.
A coating as claimed in claim 1 or 2, further comprising one or more stacks of the form (L/2 H L/2) added to the one or more interleaved stacks to define the transmission bandwidth for an IR reflector.
A coating as claimed in claims 1, 2 or 3, wherein the low refractive index material has a value of between approximately 1.40-1.50 and the high index of refraction material has a value of between approximately 2.0-2.2.